

## REMARKS

This reply is submitted in response to the office action dated November 16, 2007  
Reconsideration of the Application is requested.

Claims 1-12, 16-17, 19-20, 22-33, 35, 57-62, 65-70, 73-85 are pending.

Claims 3, 13-15, 18, 19, 21, 23, 34, 36-56, 63, 64, 71, 72, and 86-89 are cancelled.

Claims 1, 7, 27, 28, 29, 20, 31, 32, 66, 67, 70, 74, 76, 77 and 84 are amended. Support for these amendments is found at page 9 paragraph [0038], Page 12, paragraph [0043], page 13, paragraph [0046], pages 9-10, paragraphs [0034] to [0036].

### Rejection under 35 USC § 112, Second Paragraph

Claims 33, 59, 62, 65-70, 73-85 are rejected under 35 USC § 112, Second Paragraph as being indefinite for failing to particularly point out and distinctly claims the subject matter regarded as the invention. The Examiner suggests the claims are unclear because elastomers are absent from the invention yet plastomers are a subset of elastomers. Applicant respectfully disagrees. Plastomers are not a subset of elastomers. ASTM D 1566-00b *Standard Terminology Relating to Rubber* defines elastomer to be "an elastic polymer." Elastic is defined as "of or pertaining to elasticity." Elasticity is defined as "[t]he rapid recovery of a material to its approximate initial shape and dimensions after substantial deformation by force and subsequent release of that force." Plastomers do not have this property of "rapid recovery of a material to its approximate initial shape and dimensions after substantial deformation by force and subsequent release of that force." Furthermore, the plastomers used in this invention are discussed at page 9, paragraphs [0034] to [0036]. Please also note that in claims 65, 68, 69, 73, 75 the plastomer has a having a 1% secant flexural modulus of from 10 MPa to 150 MPa. Elastomers do not have such a 1% secant flexural modulus. Likewise, in claim 66, 67, 70, 74, 76 the plastomer is a copolymer of ethylene and from 2 to 35 weight % of butene, hexene and or octene. This is not an elastomer. These copolymer have too much ethylene content to have the elasticity required for an elastomer. Further, claims 78, 79, 80, 81, 82 describe the plastomer as having a melting temperature of from 30 to 80 °C (first melt peak) and from 50 to 125 (second melt peak). Elastomers do not have melting temperatures this high.

Thus, one of ordinary skill in the art would understand the difference between an elastomer and a plastomer in the instant claims, especially because each plastomer in the claims has a feature included that is specific to plastomers.

Additionally, Applicant notes that claim 83 does not contain the word plastomer, but does include a metallocene catalyzed copolymer of ethylene and 1-butene, 1-hexene, or 1-octene having a density of 0.86 to 0.900 g/cm<sup>3</sup> and an Mw/Mn of 1.5 to 5. This is a plastomer not an elastomer. Claim 84 does not contain the word plastomer, but does include a metallocene catalyzed copolymer of ethylene and 1-butene, 1-hexene, or 1-octene having a density of 0.86 to 0.900 g/cm<sup>3</sup> and an Mw/Mn of 2.0 to 4. This is a plastomer not an elastomer. Claim 85 does not contain the word plastomer, but does include a metallocene catalyzed copolymer of ethylene and 1-octene having a density of 0.86 to 0.900 g/cm<sup>3</sup> and an Mw/Mn of 1.5 to 5. This is a plastomer not an elastomer.

Further, claims 33, 59, and 62 do not contain the word plastomer. Applicant is uncertain as to why the Examiner rejected them. Clarification is requested.

In light of the above, Applicant submits that it would be clear to one of ordinary skill in the art who has read and understood the instant specification that the plastomers claimed are not elastomers. Applicant respectfully submits that the claimed invention is not indefinite under 35 USC § 112. Withdrawal of this rejection is requested.

#### Rejections under 35 USC § 102(b)

Claims 1-4, 6, 7, 10-12, 19, 20, 57, 58 are rejected under 35 USC § 102(b) as being anticipated by US 5,240,966 (“Iwasaki”) .

The Examiner suggests that Iwasaki discloses a granular colorant containing polypropylene and 150 g of Lucant HC-10. Applicant would like to direct the Office to Col. 9, Lines 55-58 of Iwasaki. Iwasaki filters off the excess oily pigment dispersion and then freeze-dries the remaining residue. It is the Applicant’s position that this process is intended to remove all liquids from the polypropylene to leave the stated granular colorant.

The vapor pressure of a solid (the C.I. Pigment Red 48-2) is 10-15 orders of magnitude less than the vapor pressure of a liquid (see attached EPA document on CI Pigment Red 48 on

page 9 showing a vapor pressure of  $2.9 \times 10^{-19}$  mmHg). It is the Applicant's position that Iwasaki intends to remove all of the Lucant HC-10, which would be possible given the magnitude of difference between the vapor pressure of a liquid and the vapor pressure of a solid. Because Iwasaki intends to remove all liquids from the polypropylene, Applicant believes that the Office cannot argue that it would have been impossible to actually remove all of the Lucant HC-10. Because the specification does not teach or show any remaining Lucant HC-10, the Office may not simply infer the presence of remaining compounds.

While it is the Applicant's position that Iwasaki does not teach the presence of any Lucant HC-10, even assuming that no Lucant HC-10 is removed during the freeze drying process, Iwasaki does not teach the presence of 1 wt% to 40 wt%, based upon the weight of the polyolefin and the non-functionalized plasticizer which is required in a number of the currently pending claims.

Applicant is going to walk through a case where no Lucant HC-10 is removed in the freeze drying process (even though Applicant believes that all of the Lucant HC-10 is removed) to show that it would still not teach 1-40 wt % of Lucant HC-10 in a melt-blended polymer. Example 8 takes 500 g of porous polypropylene and mixes the polypropylene with 1000 g of oily pigment dispersion, which contains 150 g of Lucant HC-10, 200 g of dye, and 650 g of paraxylene. Since 640 g of granular colorant is recovered after freeze drying, and it is safe to assume no polypropylene is removed in this process, there is 140 g of some combination of Lucant HC-10, dye, and paraxylene remaining. Assuming conditions that would be least favorable to the Applicant, i.e., that only paraxylene was removed during freeze drying and that the ratio of Lucant HC-10 to dye remains constant in the polypropylene, there would be at most 60 g of Lucant HC-10 remaining in 640 g of the granular colorant (Applicant believes there will actually be less Lucant HC-10 because some or all of the Lucant HC-10 is removed during the freeze drying process).

Experimental example 1 shows the step of blending the granular colorant with additional polypropylene; 5 parts of the granular colorant is blended with polypropylene pellets. While the example does not specify the amount of polypropylene pellets used, Applicant assumes for the purposes of this calculation that 100 parts of polypropylene pellets were used (this calculation is

consistent with the language used throughout the specification; see Col. 4, line 68; Col. 5, line 47; Col. 6, line 18 and line 24). This would result in at most 0.47 g of Lucant HC-10 [ $5 \times (60/640)$ ] in 105 g of the blended product. So even assuming conditions that would be least favorable to the Applicant, there would still only be at most 0.45 wt% Lucant HC-10 based upon the weight of Lucant HC-10 and the total amount of polypropylene in the blended product.

In light of the above, Applicant respectfully submits that the claimed invention is not anticipated from Iwasaki and requests that the rejection be withdrawn.

#### Rejection under 35 USC § 103(a)

Claims 5, 8 and 9 are rejected under 35 USC § 102(a) as being unpatentable over US 5,240,966 ("Iwakasi"). The Examiner suggests that Iwasaki discloses similar materials and therefore the properties would be the same as in Claims 5, 8 and 9. Applicant respectfully disagrees. As noted above, the Lucant-HC-10 (regardless of its properties) is not present in the blend at the amounts required in claim 1 (which claims 5, 8 and 9 are dependent upon). Nothing in Iwasaki or the record provides "clear articulation of the reason(s) why the claimed invention would have been obvious, e.g. why one of ordinary skill in the art would have not removed the Lucant-HC-10." (MPEP § 2142). Thus Applicant submits a prima facie case of obviousness has not been made and respectfully requests the rejection be withdrawn.

#### Rejection under 35 USC § 102(e)

Claims 1-12, 16, 20, 57 and 58 are rejected under 35 USC § 102(e) as being anticipated by US 6,639,020 ("Brant").

Brant discloses polypropylene blends plasticized by ethylene copolymers having certain properties. The Examiner suggests that Brant's blend of polypropylene and ethylene plasticizer copolymers anticipates the claimed invention. Applicant respectfully disagrees. Please note that page 21, paragraph [0063], of the application as filed states "*polyethylene homopolymer and copolymer having a weight average molecular weight of from 500 to 10,000 is substantially absent. Such polyethylene compatibilizers are disclosed in, for example, WO 01/18109 A1. By 'substantially absent', it is meant that these compounds are not added deliberately to the*

*compositions."* WO 01/18109A1 is the PCT equivalent of Brant (US 6,639,020). These are specifically excluded by Applicant's language in claim 1 of "*wherein the polyethylene homopolymer and copolymer having a weight average molecular weight of from 500 to 10,000 is substantially absent from the composition.*"

Applicant respectfully requests the rejection be withdrawn.

#### Double Patenting Rejections

Claims 1-12, 16, 17, 19, 20, 22-33, 35, 37, 57-62, 65-70, and 73-85 are provisionally rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 1-33, 35 and 57-89 (specifically claim 38) of copending USSN 433,623.

Claims 17-32, 35, 60 and 61 are provisionally rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 17-55 (specifically claim 38) of copending USSN 11/406,926.

Claims 1-12, 16, 17, 19, 20, 22-33, 35, 57-62, 65-70, and 73-85 are provisionally rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 79-105, 107, 121-126, 208, 212, 214, 216, 220, 223, and 225 of copending USSN 10/640,435.

Applicant respectfully disagrees, however submits terminal disclaimers over USSN 10/433,623, USSN 10/640,435, and USSN 11/406,926.

#### Objections

Claims 7 and 27 are objected to as missing the word "Kinematic" and for having a broader KV<sub>100</sub> range than the independent claims. Correction has been made.

Claims 27-32 are objected to because of an extra comma. Correction has been made.

Applicant thanks the Examiner for withdrawing the rejection over Kligensmith in view of Suokas.

**CONCLUSION**

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Reconsideration and allowance is respectfully requested. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been presented to the Examiner's satisfaction.

Please charge any deficiency in fees or credit any overpayments during the entire pendency of this case to Deposit Account No. 05-1712. Please also charge any petition fees, including fees for extensions of time necessary for the pendency of this case or copendency of this application with another application at any time to Deposit Account No. 05-1712.

Respectfully submitted,

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